

Claims

1. A fuel reformer for reforming a hydrocarbon base fuel into a hydrogen rich gas, wherein at least a part of material composing the reformer is a material containing at least Cr, Ni and Si by Cr 15 to 25 mass %, Ni 8 to 35 mass %, Si 2 to 4 mass %, and the remaining ingredients include Fe and inevitable impurities (C, Mn, P, S or others).

2. A fuel reformer for reforming a hydrocarbon base fuel into a hydrogen rich gas, wherein at least a part of material composing the reformer is a material containing at least Cr, Ni, Si and Nb by Cr 15 to 25 mass %, Ni 8 to 35 mass %, Si 2 to 4 mass %, Nb 0.05 to 1 mass %, and the remaining ingredients include Fe and inevitable impurities (C, Mn, P, S or others).

3. The fuel reformer according to claim 2, wherein at least a part of material composing the reformer is a material containing at least Cr, Ni, Si and Nb by Cr 17 to 20 mass %, Ni 8 to 14 mass %, Si 2 to 4 mass %, Nb 0.05 to 0.5 mass %, and the remaining ingredients include Fe and inevitable impurities (C, Mn, P, S or others).

4. The fuel reformer according to any one of claims 1 to 3, wherein a portion where raw fuel introduced from a raw fuel inlet of the reformer and steam come into contact with is composed of said material.

5. The fuel reformer according to claim 4, wherein a portion where raw fuel introduced from a raw fuel inlet of the reformer and steam come into contact with and which is a heated portion is composed of said material.